

LYCOPODIACEÆ.

Lycopodium annotinum, Linn.

July 28.

FILICES.

Phegopteris Dryopteris, Fée.

July 28. Near station.

Aspidium spinulosum, Swartz.

Mouth of Allokuagik River. August 23.

Asplenium Filix-fœmina, Bernh.

July 27.

MUSCI.

Sphagnum, species.

Near station. August 12.

Polytrichum gracile, Menz.

August 9.

Polytrichum strictum, Banks. (*P. juniperinum*, Willd., var. *strictum*.)

Abundant about station. June 10.

Hypnum, species.

Specimens without fruit. Allokuagik River. August 24.

LICHENS.

"Cladonia gracilis (L.) Nyl, var. *elongata*, Fr. *forma macroceras*." Edward Tuckerman (in litt.)

Allokuagik River. August 24.

NATIONAL MUSEUM, June 1, 1885.

THE GENERIC NAME OF THE PASTINACAS, OR "STING-RAYS."

By S. GARMAN.

Dasybatus Klein, 1742, Ichthyol., Miss., iii, 34.

Walbaum, 1792, Artedi Gen. Pisc., 581.

Walb., 1793, Kleinii Ichthyol. Enod., 35.

Jordan, 1881, Pr. U. S. Mus., 35.

Dasyatis Rafinesque, 1810, Car. Gen., 16.

Raf., 1810, Ind. d'Ittiol. Sicil., 49.

Raf., 1815, Annal. Nat., 93.

Jord., 1883, Bull. 16, U. S. Mus., 47.

Trygonobatus Blainville, 1816, Bull. Soc. Philom., 112.*Trygon* (Adans.) Cuvier, 1817, R. Anim., ii, 136,—1829, ii, 399.

G Geoffroy, 1817, Descr. Egypt, Poiss., plates.

Eichwald, 1819, De Selachis Aristotelis, 55.

Risso, 1826, Hist. Nat., iii, 160.

G Geoffroy, 1827, Descr. Egypt, Poiss., 332, 333.

Bonap., 1832-41, Fauna Ital., Pesci.

Müller & Henle, 1838, Ann. Mag. N. H., 90,—1841, Plagiost., 158.

- Trygon* Agassiz, 1833-43, Poiss. Fossiles, iii, 382**.
 Adanson, 1844-45, Cours d'Hist. Nat., ii, 170.
 Duméril, 1865, Hist. Nat. Poiss., i, 582.
 Günther, 1870, Cat., viii, 472.
 Gill, 1873, Fish. E. Coast N. Amer., 34.
 Goode & Bean, 1879, Fishes of Essex Co., Mass., 29.
 Garman, 1880, Bull. Mus. Comp. Zool., 170.
 Jord., 1883, Bull. 16, U. S. Mus., 879.
 And others.

Dasybatis Jord., 1880, Pr. U. S. Mus., 31.

Dasibatis Garm., 1883, in Jord. Bull. 16, U. S. Mus., 65.

Dasybatus, 1742, 1792, 1793, 1810.

By Klein, in 1742, this name was applied to one of the Pastinacas. This fact alone would not demand attention here if it were not for republication and references to Klein's works since the appearance of the tenth edition of Linné's Systema. Besides the first species, a Ray—the type of the genus under consideration—Klein had placed under the name a number of Skates. His genus is not on this account to be regarded as a synonym for *Raja* of Linné. That genus included as first established all that Klein had placed in four genera: *Narcacion*, *Rhinobatus*, *Leiobatus*, and *Dasybatus*. The first two of these latter have been generally accepted, though the name *Narcacion* (1742, 1792, 1793) has been dropped for *Torpedo* (1806).

Walbaum's use of *Dasybatus* in 1792, and again in 1793, does away with the objections to the name on account of its early date of publication by Klein. The real reason Klein's work received so little attention lies in its lack of accord with the binomial system. Accepting this as sufficient cause for putting aside its specific designations, we still have to deal, in the cases of his genera, with Walbaum's Artedi Genera Piscium, in which they appear, as those of Linné, Gronow, Bloch, and others, only as genera with names necessarily monomial.

If it is decided that both Klein and Walbaum are to be considered insufficient authority we shall take the next name applied to these Rays in order of time. This, applied in 1810 by Rafinesque, is in reality the same name, *Dasyatis* being merely an incorrect spelling.

This authority removes from the genus all of the Skates, *Rajæ*, and leaves but the first species of Klein's list, *Dasybatus pastinaca*. The objections to acceptance of the name from the earlier authorities can hardly be urged against receiving it from Rafinesque. In consideration of its original contents, his genus stands on the same footing as *Raja* of Linné. From the date 1810, if not before, the question in regard to the adoption of the name *Dasybatus* is simply one of priority.

Trygonobatus, 1816.

If we were to discard the previous name, *Trygonobatus* of Blainville, 1816, is the next in order of appearance. Aside from the later date, this

genus was not as well constituted as that of the preceding author. It included species belonging to different genera, to either of which the name, so far as its author was concerned, might equally well be applied. That Rafinesque had already founded a genus containing a portion of that of Blainville, however, would leave the name given by the latter applicable to species placed under it by him which did not belong to Rafinesque's genus, *Dasybatus*.

Trygon, 1817.

On page 136 of volume second of the first edition of the *Règne Animal*, Cuvier gives the name *Trygon* to the genus of the Pastinacas. From all that has been gathered on the subject, this, after the time of Linné, appears to be the first publication of the name in this connection. The author credits it to Adanson, but without indication of place: "LES PASTENAGUES (TRYGON Adans.);" I find no mention of the name by Adanson previous to that in the "Cours d'Histoire Naturelle," ii, 170, published in 1845. Probably Cuvier received it from the MSS.; subsequent writers have accepted it on his authority. His genus being identical with that of Rafinesque, it is evident that if the first publication of the name *Trygon* is that of 1817 it is only a synonym of *Dasybatus*. The absence of references, in the first edition, to Rafinesque's work indicates that it had not reached Cuvier at the time he was writing the *Règne Animal*. The edition of 1829 contains many references, but makes few changes on account of priority. Eichwald and later writers also use the name, crediting it to Adanson, but cite no place of publication. When references to Adanson's work have been given they cite the "Cours d'Hist. Nat.," the date for which is 1844-'45.

It remains to give attention to one other publication brought forward by authors to secure priority for the name *Trygon*. Geoffroy, in the "Description de l'Égypte," applies the name to a couple of species. If the date on the title page, 1809, was that of the entire work it would antedate that of Rafinesque. Though begun in that year, the book was under way nearly twenty years before reaching completion. The portion of the text containing the fishes of the Red Sea and the Mediterranean was written in 1825 or later. It contains citations from Risso, 1810, from Cuvier, 1817, and from the *Annales des Sciences Naturelles*, 1825. It was published in 1827. The portions of the work relating to the fishes appeared in the following order: in 1808, the plates of the Fishes of the Nile; in 1809, the text of the Fishes of the Nile, "comprenant le Polyptère, les Tétrodons et plusieurs Salmonidés"; in 1817, the balance of the plates of the fishes, those belonging to the Fishes of the Red Sea and the Mediterranean, among which were those of interest in this communication; and it was not until 1827 that these latter plates were followed by the text pertaining to them, that of the "Poissons de la mer Rouge et de la Méditerranée," in which are described two spe-

cies, under the name *Trygon*, that had been named and figured on plates published in 1817. In this publication there is nothing on which to base a claim for priority in favor of the name *Trygon*.

Unless there was a publication of the name *Trygon* between 1758 and 1810, not yet come to our notice, a due regard for the rule of priority compels its reduction to the rank of a synonym for *Dasybatus*.

At present the genus contains the species given below, nearly or quite all of which are valid.

DASYBATUS.

- Raja tuberculata* LaC., 1800, Hist. Poiss., ii, 106, pl. 4, f. 1.
Trygon reticulatus Gthr., 1880, Ann. Mag. N. H., vi., 8.
T. longa Garm., 1880, Bull. Mus. Comp. Zool., 170.
Raia centrura Mitch., 1815, Trans. Lit. & Phil. Soc., i, 479.
Trygon hastata DeK., 1842, N. Y. Fauna, Fishes, 275.
T. brevis Garm., 1880, Bull. M. C. Z., 171.
Raja sayi Les., 1817, Jour. Phil. Ac., i, 42.
Dasybatis dipterurus Jord., 1880, Pr. U. S. Mus., 31.
Trygon sabina, Les., 1824, Jour. Phil. Ac., iv, 109.
Raja uarnak Forsk., 1775, Descr. Anim., 18.
Trygon marginatus Blyth, 1860, Jour. As. Soc. Bengal, 38.
T. gerrardi Gray, 1851, Chondropt., 116.
T. punctata Gthr., 1870, Cat., viii, 474.
T. bleekeri Blyth, 1860, Jour. As. Soc. Bengal, 41.
T. walga M. & H., 1841, Plagiost., 15), pl. 50.
T. polylepis Blkr., 1852, Verh. Bat. Gen., xxiv, Plag., 73.
T. nuda, Gthr., 1870, Cat., viii, 476.
Raja gesneri Cuv., 1820, R. Anim., 400.
Trygon bruceo Bonap., 1832-'41, Fauna Ital., Pesci.
T. violacea Bonap., l. c.
Raja pastinaca Linn., 1758, Systema, 232.
Trygon kuhlii M. & H., 1841, Plagiost., 1864, pl. 50.
T. margarita, Gthr., 1870, Cat., viii, 479.
T. rudis Gthr., 1870, l. c., 479.
Hemitrygon ukpam Smith., 1859, Pr. R. Phys. Soc. Edinb., 64.
Trygon bennetti M. & H., 1841, Plagiost, 160, pl. 52.
Raja imbricata Bl., Schn., 1801, Syst. Ichth., 366.
Trygon zugei M. & H., 1841, Plagiost., 165, pl. 53.
T. breicaudata Hutton, 1875, Ann. Mag. N. H. (4), xvi, 317.
T. liocephalus Klunzgr., 1871, Synops. Red Sea Fishes, 238.
T. lata Garm., 1880, Bull. M. C. Z., 170.
T. (Himantura) oxyrhynchus Sauvage, 1878, Bull. Soc. Philom., 94.
Dasybatus varidens Garm., 1885, Pr. U. S. Mus., 40.
Raja sephen Forsk., 1775, Descr. Anim., 17.